Ken KATSUMOTO*: Notes on fungi from western Japan (4)**

勝本 謙*: 西日本産菌類論考 (4)

The Mycological flora of Japan is remarkably rich in southern tropical elements, and many characteristic species of parasitic fungi are found in Japan, especially in south-western Japan. It is unquestionable that the parasitic fungi of southern Japan are much related to those of tropical or subtropical Asia such as Formosa, Philippines or southern China, though the investigations on these fungi of southern Japan are still extremely insufficient. It is, therefore, expected that the identification of the fungi in these regions is executed as immediately as possible. The writer here described 8 species of parasitic sooty molds among which 2 species were new and 3 species were formerly known only from Formosa. The writer wishes to express his gratitude to Prof. Hino for his kind suggestion and criticism.

52. **Meliora dichotoma** Berkeley et Curtis, in Proc. Amer. Acad. Art. & Sci. **4**: 130, 1860—Saccardo, Syll. Fung. **1**: 71, 1882—Stevens, Ann. Mycol. **26**: 177, 1928—Hara, List Jap. Fungi: 198, 1954—Yamamoto, Sci. Rep. Hyogo Univ. Agr, **3**(2), Ser. Agr. Biol.: 54, 1958.

Meliora kusanoi P. Hennings, in Engl. Bot. Jahrb. **28**: 272, 1900—Saccardo, Syll. Fung. **16**: 413, 1902—Hara, List Jap. Fungi: 199. 1954.

Meliora hedera Yamamoto, in Trans. Nat. Hist. Soc. Formosa **31**: 53, 1941—Hara, List, Jap. Fungi: 198, 1954.

The colonies are amphigeneous, sparse, orbicular and somewhat irregular in shape, blackish, velvety and 2–5mm in diameter; the mycellia are reticulately abundant, erect, fuscous brown, oppositely ramose, 7–11μ in width and composed of the cells which are 17–30μ in length; the capitate hyphopodia are opposite, sometimes alternate, numerous, 2-celled, erect or curved, oblong or clavate and 15–20×7–10μ; the mycelial setae are numerous, blackish brown, mostly once and sometimes twice dichotomous and 80–250μ in length at the primary portion, branches are slowly recurved, obtuse at the apex and 30–120μ in length; the perithecia are gregarious, globose or somewhat depressed, blackish and 200–250μ

---

[*] Laboratory of Plant Pathology, Faculty of Agriculture, Yamaguti University. 山口大学農学部植物病学研究室.

[**] (3): Bull. Fac. Agr. Yamaguti Univ. no. 9: 909—916. 1958.

in diameter; the ascospores are oblong, rotundate at both ends, fuscous brown, 4-septate, constricted at the septa, guttate and 38–51×13–18μ.

Hab. on the leaves and petioles of *Hedera rhombea* Sieb. et Zucc. (*Kizuta*). Wada-mura, Prov. Suô (Oct. 29, 1952. I. Hino); Mt. Kuruson, Prov. Nagato (Oct. 28, 1956. K. Katumoto).

Distrib. Japan, Formosa and Philippines.

53. **Meliora machili** Yamamoto, in Trans. Nat. Hist. Soc. Formosa **31**: 23, 1941; Sci. Rep. Hyogo Univ. Agr. **3**(2), Ser. Agr. Biol.: 77, 1958—Hara, List Jap. Fungi: 199, 1954.

The colonies are amphigeneous, sparse, orbicular or somewhat irregular in shape, fuliginous, velvety and 2–6mm in diameter; the mycelia are reticulately abundant, irregularly ramose, undulate, blackish brown and 8–11μ in width; the capitate hyphopodia are alternate, clavate, frequently curved, rounded at the apex. 2-celled and 24–30×11–15μ; the mycelial setae are long needle-like in shape, simple, mostly erect, pointed at the tips, blackish, 500–1100μ in length and 10–14μ in width; the perithecia are gregarious, globose or somewhat depressed, blackish and 190–260μ in diameter; the asci are oblong or elliptic, shortly stipitate, with two spores and 65–75×30-35μ; the ascospores are oblong or fusoid-oblong, 4-septate, rounded at both ends, constricted at the septa, fuscous or blackish brown, guttate and 52–63×20–25μ.

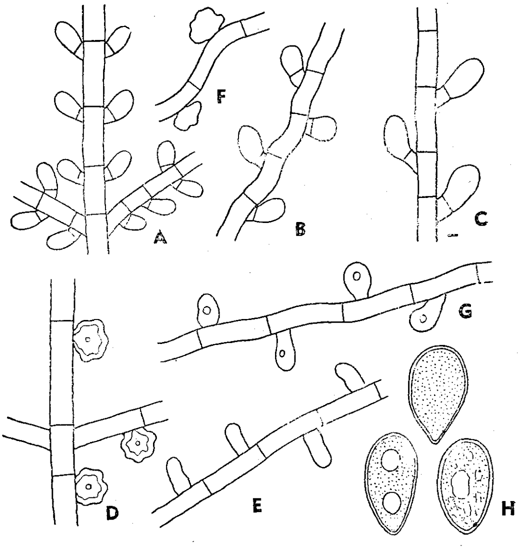

Fig. 1. A. *Meliora dichotoma*. B. *M. osmanthi*. C. *M. machili*. D. *Asterina theae*. E. *A. daphniphylli*. F. *A. violae*. G, H. *Asterostomella meliosmae*. (A-G: hyphae & hyphopodia, H: pycnospores)

Hab. on the leaves of *Machilus thunbergii* Sieb. et Zucc. (*Tabunoki*). Toyoda-tyô, Prov. Nagato (Nov. 7, 1958. K. Katsumoto).

Distrib. Formosa.

This species is new to the flora of Japan.

54. **Meliora osmanthi** Sydow, in Ann. Mycol. **18**: 157, 1920——Saccardo, Syll. Fung., 24: 330, 1926——Stevens, Ann. Mycol. **26**: 222, 1928——Yamamoto, Trans. Nat. Hist. Soc. Formosa **30**: 155, 1940; Sci. Rep. Hyogo Univ. Agr. **3** (6), Ser. Agr. Biol.: 75, 1958——Hara, List Jap. Fungi: 199, 1954.

Meliola osmanthi-aquifolii Hara, Fungi **1** (2): 13, 1931; List Jap. Fungi: 199, 1954.

The colonies are epiphyllous, sparse, orbicular or somewhat irregular, blackish, somewhat velvety and 1–3mm in diameter; the mycelia are reticulate, erect, oppositely ramose, blackish brown and 9–10μ in width; the capitate hyphopodia are alternate, oblong, 2-celled, rounded at the apex and 17–24×11–13μ; the mycelial setae are needle-like in shape, simple, erect, pointed at the tips, blackish and 250–800×8–11μ; the perithecia are globose, blackish, 180–260μ in diameter; the asci are elliptic oblong, with 2 spores and 60–75×30–38μ; the ascospores are oblong or elliptic-oblong, 4-septate, rounded at both ends, constricted at the septa, fuscous brown and 48-60×15–22μ.

Hab. on the leaves of *Ligustrum japonicum* Thunberg (*Nezumimoti*). Shimonoseki City, Prov. Nagato (Nov. 6, 1955. K. Katumoto); Toyoda-tyô, Prov. Nagato (Nov. 7, 1958. K. Katsumoto); Hôhu City, Prov. Suô (Feb. 21, 1960. K. Katumoto).

Distrib. Japan, Formosa and Hawaii.

Ligustrum japonicum is a new host plant of this sooty mold. The present fungus is not so uncommon in south-western district of Japan.

55. **Asterina daphniphylli** Yamamoto, in Sci. Rep. Hyogo Univ. Agr. **2** (2), Ser. Agr. Biol.: 34, 1956——Hino & Katumoto, Bull. Fac. Agr. Yamaguti Univ. **8**: 647, 1957.

The colonies epiphyllous, sparse or gregarious, orbicular, blackish and 3–6mm in diameteter; the mycelia are irregularly reticulate, somewhat undulate, oppositely or alternately ramose, brownish and 6–7μ in width; the capitate hyphopodia are alternate, sometimes lateral, subcylindrical, erect or frequently curved, continuous, rounded at the apex and 10–14×5–6μ; the thyriothecia are gregarious, rotundate and 150–240μ in diameter; the asci are subglobose, oval or obovate, with 8 spores, 50–68.5×39–49μ ond lack in paraphyses; the ascospores are ovate-oblong or oblong, 1-septate, constricted at the septum, rounded at both ends, brownish, guttate and 29–33×12–14μ.

Hab. on the leaves of *Daphniphyllum teijsmanni* Zoolinger (*Hime-yuzuriha*). Udo, Prov. Hyûga (March 3, 1955. K. Katumoto); Tokushima, Prov. Oosumi (June 25, 1961. I. Hino).

Distrib. Formosa and Japan.

It was for the first time described in Formosa, though it may be widely distribution in southern Japan.

56. **Asterina theae** Yamamoto, in Sci. Rep. Hyogo Univ. Agr. **3** (1), Ser. Agr. Bol.: 27, 1957.

The colonies are epiphyllous, sparse, circular or somewhat irregular, fuliginous, crustous and 3-5mm in diameter; the mycelia are irregularly reticulate, alternately or oppositely ramose, erect, somewhat undulate, brownish and 6-8μ in width; the capitate hyphopodia are alternate or lateral, subglobose or hemispherical, sessile, continuous, undulate or a little lobate and 11.5-13.5$\times$12-18μ; the thyriothecia are gregarious, rotundate or sometimes elliptic, flattened scutiform, radiate, dehiscent at the apex, fimbriate at the margin, brownish and 250-400μ in diameter; the asci are cylindrical, rounded at the apex, with short stipes, 65-100$\mu\times$23-27μ and contain 8 spores; the paraphyses are numerous, filiform, hyaline and 60-80$\times$3μ; the ascospores are oblong, 1-septate, rounded at both ends and 30-35$\times$12-15μ.

Hab. on the leaves of *Camellia japonica* Linn. (*Yabu-tubaki*). Toyodatyô, Prov. Nagato (Nov. 7, 1958. K. Katumoto); Hônokawa-yama, Prov. Tosa (Dec. 25, 1959. K. Katumoto); Hôhu City, Prov. Suô (Feb. 11, 1960. K. Katumoto).

Distrib. Formosa

The ascospores of the writer's materials were not yet matured, but other general characteristics of the fungus were identical with those of the original description.

The present species was described in Formosa as a parasite on *Thea sinensis* Linn. It is ubiquitously found on *Camellia japonica* in south-western Japan, and it has generally been identified as *Asterina cincta* Berkeley. The type specimen of *A. cincta*, however, was incomplete and infested with *Acanthostoma* fungus, and the specific name of *A. cincta* was then erased and replaced by the name of *A. camelliae* Sydow et Butler. *A. theae* Yamamoto and *A. camellia* Sydt. et Butl. (=*Clypeolella camelliae* Hansford) strikingly resemble the fungus in question, and the reexamination of these two species of fungi seems to necessary in future.

57. **Asterina violae** P. Hennings, in Hedwigia, **41**: 63, 1902——Saccardo,

Syll. Fung. **17**: 876, 1905——Theissen, k.k. Zool.-Bot. Gesellsch. Wien **7** (3): 100, 1913——Hara, List Jap. Fungi: 29, 1954.

The colonies are epiphyllous, gregarious, orbicular or irregular in shape, 1–2mm in diameter and frequently confluent, fuliginous; the mycelia are reticulate, undulate, irregularly ramose, fuscous brown and 3–6μ in width; the capitate hyphopodia are alternate, sessile, subglobose or elliptic, sometimes hemispheric continuous, lobate and 4–6×5–8μ; the thyriothecia are gregarious, small, stellately dehiscent at the apex, not fimbriate at the margin and 60–100μ in diameter; the asci are globose, elliptic or obovate, with 8 spores and 20–27×16–23μ; the ascospores are oblong, 1-septate, constricted at the septum, rounded at both ends, fuscous brown and 12.5–14.5×5.5–6.5μ.

Hab. on the leaves of *Viola ovato-oblonga* Makino (*Nagabano-tatitubo-sumire*). Ube City, Prov. Nagato (Apr, 13, 1958. M. Miyazi)

Distrib. Japan.

The present species has been only known from the type locality, Mt. Yokogura in Tosa Province, up to this date.

58. **Parmulina japonica** Hino et Katumoto, spec. nov.

Stromatibus foliicolis, amphigenis, sparsis vel subgregariis, solitariis, saepe confluentibus, plane disciformibus, 1.2–2mm diam., 100–150μ altis, centro brevissime stipitatis, fuligineis, 15–22 locularibus; contextu membranceo, radiato, atrofusco, ex hyphis 16–24μ longis et 3.5–4.5μ latis composito; loculis radiatim depositis, breviter linearibus, longitudinaliter dehiscentis, 300–500μ longis: ascis cylindraceis, apice tereti rotundatis et paulum crassiparietalibus, breviter stipitatis, octosporis, 58–96×13–20μ; ascosporidiis distichis, oblongis vel oblongo-fusoideis, 1-septatis, ad septum non vel vix constrictis, cum celluris superioribus paulum latioribus, apice rotundatis, ad basim obtusis, primum hyalinis, mox brunneis, glabris, 20–25×7–11μ.

Hab. in foliis vivis *Daphniphylli teijsmanni* Zollinger (*Hime-yuzuriha*). Murotomisaki, Prov. Tosa, Sikoku (Mar. 30, 1959. K. Katumoto-Typus in Herb. Fac. Agr. Univ. Yamaguti.).

The fungus attaches itself to the leaves of the host plant only at the central portion of the stromata. The hypostroma of the fungus is subcuticular and the hyphae penetrates into the intercellular portion of the mesophyll of the leaves.

The five species of the fungi belonging to the genus *Parmulina* have been known from the tropical regions of the world. The fungus in question is easily distinguishable from *Farmulina exculpta* (Berk.) Theiss. et Syd., *P. dimorphospora* (R. Maire) Theiss. et Syd. or *P. stigmatopteridis* (Ferd. et Wge.) Theiss. et Syd. in respects of the larger stomata and ascospores, and from *P. rehmii* (Maubl.) Theiss. et Syd. or *P. uleana* (P. Henn.) Theiss. et Syd. in respects of the characteristics of the stromata and locules.

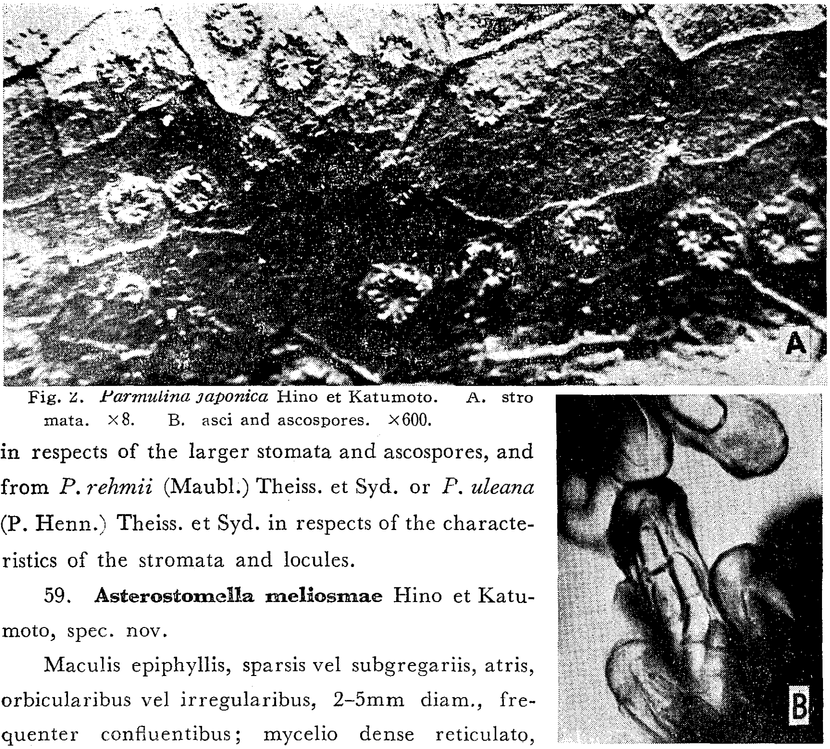

Fig. 2. *Parmulina japonica* Hino et Katumoto. A. stromata. ×8. B. asci and ascospores. ×600.

59. **Asterostomella meliosmae** Hino et Katumoto, spec. nov.

Maculis epiphyllis, sparsis vel subgregariis, atris, orbicularibus vel irregularibus, 2–5mm diam., frequenter confluentibus; mycelio dense reticulato, undulatis, irregulariter ramosis, ex hyphis fuscis, 18–24μ longis et 5–9μ crassis compositis; hyphopodiis capitatis paucibus, alternis, continuis, ellipsoideis, subglobosis vel oblongis, rectis vel interdum curvatis, apice rotundatis, 12–17×6–10μ; pycnidiis gregariis, dimidiato-scutellatis, convexis, 180–250μ diam.; contextu radiato, centro stellatim dehiscento, margin paulum fimbriato, atro-fusco; pycnosporis obovatis vel obovato-oblongis, continuis, apice rotundatis, ad basim attenuato obtusis, fusco-brunneis, glabris, 20–28×15–19μ.

Hab. in foliis vivis *Meliosmae rigidae* Sieb. et Zucc. (*Yamabiwa*). Hônokawayama, Prov. Tosa (Dec. 25, 1959. K. Katumoto-Typus in Herb. Fac. Agr. Univ. Yamaguti.).

The present fungus seems to the genus *Asterina*, but the ascigerous stage of this fungus was not found in the writer's material.